Installation Guide

MXD-430 4.3" Modero X Series® Wall/Flush Mount Touch Panel

Overview

The MXD-430 4.3" Modero X Series® Wall/Flush Mount Touch Panel (**FG5968-15**), available in portrait mode only, includes a beautiful capacitive multi-touch screen that provides users access to multiple applications with minimal navigation. This new generation of touch panels is built for usability, offering edge-to-edge capacitive touch glass with multi-touch capabilities. It features advanced technology empowering users to operate AV equipment seamlessly, while providing the ultimate in audio and video quality. With a lightning fast processor, brilliant graphics and enhanced capabilities, the Modero X Series is the control surface that simply delivers more.

For more information on installation and configuration, please refer to the *MXD-430 Operation Reference Guide*, available at **www.amx.com**.

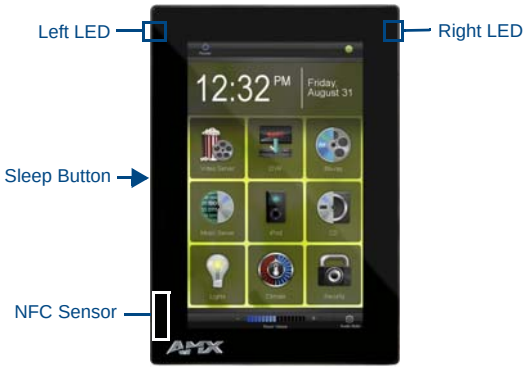

FIG. 1 MXD-430

Product Specifications

MXD-430 (FG5968-15) Specifications	
Power:	PoE (Power over Ethernet), 802.3af, class 3
Power Consumption:	• *Full-On:* 6.5 W maximum • *Standby:* 4.2 W • *Shutdown:* 1.9 W • *Startup Inrush Current:* Not Applicable due to PoE standard
Front Panel Components:	
NFC Transceiver:	Antenna and transceiver for Near Field Communications device detection and interaction.
Light Sensor:	Photosensitive light detector for automatic adjustment of the panel brightness.
Motion Sensor:	Proximity detector to wake the panel when it is approached. • *Typical Range:* 1 foot (30.48 cm) • *Maximum Range:* 3 feet (91.44 cm) • *Range width:* 10 degrees
LED Indicator:	Two programmable red/green LEDs on the left and right sides of the touch panel.
Sleep Button:	Single button on left side for placing panel in sleep mode, for powering off the panel, and for accessing the Settings Pages.
Microphone:	-42dB ± 3dB sensitivity FET mic
Speaker:	4 ohm, 2 Watt, 300Hz cutoff frequency
Rear Panel Components:	
USB Port:	USB connector used for keyboard and mouse connections, or for firmware uploads.
Ethernet 10/100 Port and Cable:	10/100 Base-T RJ-45 connector for Ethernet connectivity and PoE.
Touch Panel Display:	
Display Type:	TFT Active Matrix Color LCD with In-plane Switching Technology (IPS)
Display Size:	3.3 x 4.8" (82 mm x 120 mm), 4.9" (119 mm) diagonal
Viewable Area:	2.2" x 3.7" (56 mm x 94 mm), 4.3" (109 mm) diagonal
Viewing Angle:	• *Vertical:* ± 80° • *Horizontal:* ± 80°
Screen Resolution (W x H):	480x800
Aspect Ratio (W x H):	9:16
Brightness:	550 cd/m2
Contrast Ratio:	1000:1

MXD-430 (FG5968-15) Specifications (Cont.)	
Touch Panel Display (Cont.):	
Color Depth:	16.7M colors
Backlight Type:	LED
Touch Overlay:	Projected Capacitive; Multi-touch support, 3 simultaneous max.
Communications:	
Ethernet:	10/100 port, RJ-45 connector. Supported IP and IP-Based Protocols: UCP, TCP, ICMP, ICSP, IGMP,DHCP, Telnet, FTP, DNS, RFB (for VNC), HTTP
USB:	(1) USB host 2.0, Type A ports: Firmware upgrade, Touch Panel File Transfer, JPEG Image Viewer
Near Field Communications (NFC):	Supports standards ISO/IEC 15693, ISO/IEC 14443A, ISO/IEC 14443B; Unique Identifier (UID), Typ Range=.25", Max = .5"
Bluetooth:	• *Mouse/Keyboard:* HID Profile v1.1 (Requires MXA-BT Bluetooth Adapter) • *Handset:* Hands Free Profile v1.5, Headset Profile v1.2 (Requires MXA-BT Bluetooth Adapter and MXA-HST Bluetooth Handset)
Video:	
Supported Video Codecs:	• MPEG-2-TS: MPEG-2 Main Profile@High Level up to 720p at 25 fps (decode only) • MJPEG up to 720p at 25 fps (decode only) • MPEG-2-TS: H.264 High Profile@Layer 4 • AAC-LC up to 720p at 25 fps (encode/decode)
Streaming/File Formats:	MPEG-TS for MPEG2 and H.264; HTTP for MJPEG
Maximum Number of Active Video Streams:	One decode
Audio:	
Supported Audio Codecs:	• MP2 Layer I and II, MP3 (8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz, 48 kHz) • AAC-LC (8 kHz, 96 kHz) • G.711 with MuLaw (VoIP encode/decode at 8kHz)
File Formats:	WAV, MP3
Intercom:	Full Duplex VoIP, SIP v2.0 (supported with AMX-CSG)
Operating Environment:	• Operating Temperature: 32° F to 104° F (0° C to 40° C) • Storage Temperature: 4° F to 140° F (-20° C to 60° C) • Humidity Operating: 20% to 85% RH • Humidity Storage: 5% to 85% RH • Power ("Heat") Dissipation: On: 22.2 BTU/hr, Standby: 14.3 BTU/hr
Dimensions (HWD):	Portrait Only:4 7/8" x 3 1/4" x 2 3/8" (120 mm x 82 mm x 61 mm)
Weight:	0.80 lbs (0.36 kg)
Certifications:	• UL • FCC Part 15 Class B • C-Tick CISPR 22 Class B • CE EN 55022 Class B and EN 55024 • CB Scheme IEC 60950-1 • IC • IEC/EN-60950 • RoHS/WEEE compliant
Included Accessories:	• MXD-430 Installation Guide (**93-5968-15**) • MXA-CLK Modero X Series Cleaning Kit (**FG5968-16**) • Wall Unit Mounting Pad (**66-59668-26**) • MXD-430 Installation Template (**68-5968-05**) • MXD-430 Back Box (**68-5968-05**)
Other AMX Equipment:	• MXA-MP, Modero X Series Multi Preview (**FG5968-20**) • MXA-MPL, Modero X Series Multi Preview Live (**FG5968-10**) • PS-POE-AF-TC, PoE Injector, 802.3AF Compliant (**FG423-83**) • MXA-BT Bluetooth USB Adapter for Modero X Series (**FG5968-19**) • MXA-CLK, Modero X Series Cleaning Kit (**FG5968-16**) • NXA-ENET8-2POE, Gigabit PoE Ethernet Switch (**FG2178-63**) • MXA-HST, Bluetooth Handset for Modero X Series Touch Panels (**FG5968-17**) • CSG, Communications Gateway (**FG2182-01,-02,-03**)

Panel Connectors and Wiring

FIG. 2 shows the connectors located on the underside of the MXD-430.

Power for the MXD-430 via Power Over Ethernet

Power for the MXD-430 is supplied via Power Over Ethernet (PoE), utilizing an AMX-certified, capacitive touch-compliant PoE injector such as the PS-POE-AF-TC High Power PoE Injector (**FG423-83**) or other approved AMX PoE power source. The incoming Ethernet cable should be connected to the RJ45 port on the MXD-430 (FIG. 2 and FIG. 3).

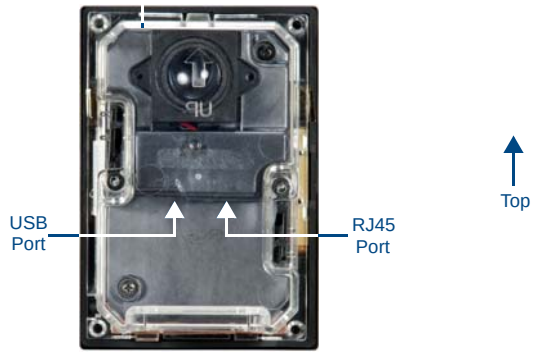

FIG. 2 Rear of the MXD-430

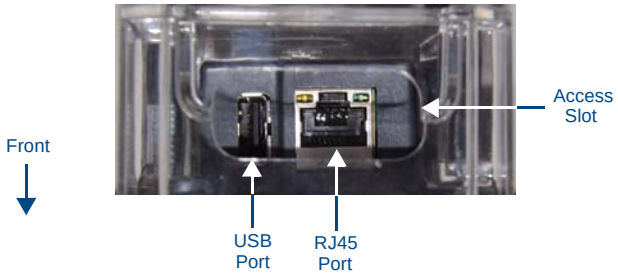

FIG. 3 Bottom of the MXD-430, showing RJ45 and USB ports

Configuring the MXD-430

The MXD-430 is equipped with Settings Pages that allow you to set and configure various features on the panel. For more information on connecting and configuring the MXD-430 to a network, please refer to the *Modero X Series Programming Guide*, available at **www.amx.com**.

Installing the MXD-430

The MXD-430 can be installed either directly into a solid surface environment, using either solid surface screws or the included locking tabs for different mounting options. For more information, please refer to the *MXD-430 Operation/Reference Guide*, available at **www.amx.com**.

The MXD-430 is contained within a clear outer housing known as the back box. This back box is removed when installing the device into a wall or when using the optional Rough-In Box accessory (**FG039-18**). For more information on back box removal, please refer to the *MXD-430 Operation Reference Guide*, available at **www.amx.com**.

Installing the MXD-430 into a wall

The back box (FIG. 4) is designed to attach the panel to most standard wall and solid surface materials. This back box has two locking tabs (one on each side) to help lock the back box to the wall. These locking tabs are only extended AFTER the back box is inserted into the wall. Using the locking tabs is highly recommended for standard mounting surfaces such as walls. For thin walls and solid surfaces, use #4 mounting screws (not included).

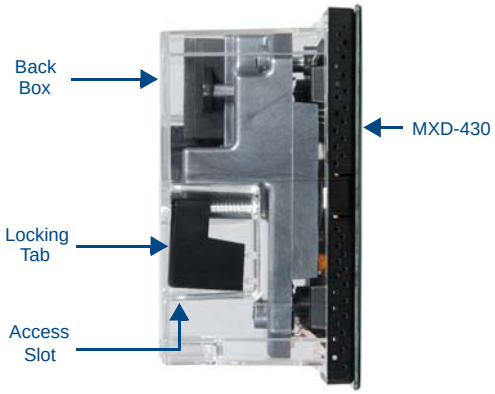

FIG. 4 MXD-430 Back Box (Side View)

WARNING: *When installing the back box, make sure that the assembly is in the correct position and in the correct place. Once the locking tabs are extended and locked into place, removing the back box may be difficult without having access to the back of the wall or causing damage to the wall.*

Note: *In order to guarantee a stable installation of the MXD-430, the thickness of the wall material must be a minimum of .50 inches (1.27cm) and a maximum of .875 inches (2.22cm). The surface should also be smooth and flat.*

WARNING: *The maximum recommended torque to screw in the locking tabs on the plastic back box is 5 IN-LB [56 N-CM]. Applying excessive torque while tightening the tab screws, such as with powered screwdrivers, can strip out the locking tabs or damage the plastic back box.*

1. After ensuring proper placement, cut out the mounting surface, using the MXD-430 Installation Template (**68-5968-05**) as a guide. Refer to the dimensions in the *MXD-430 Operation Reference Guide*, available from **www.amx.com**, for more information.

CAUTION: *Making sure the actual cutout opening is slightly smaller than the provided dimensions is highly recommended. This action provides the installer with a margin for error if the opening needs to be expanded. Too little wall material removed is always better than too much.*

2. Remove the single knockout from the back box to open the access slot (FIG. 3). Thread the incoming wiring through the hole in the rear of the back box.
3. Thread the incoming Ethernet wiring from their terminal locations through the surface opening and through the access slot.
4. Push the back box flat into the mounting surface and secure with either the locking tabs or #4 mounting screws (not included). In order to prevent damage to the touch panel, make sure that any screws used are flush with the back box, and the back box goes freely into the opening.
5. Insert each connector into its corresponding location along the back of the MXD-430.
6. Test the incoming wiring by attaching the panel connections to their terminal locations and applying power. Verify that the panel is receiving power and functioning properly to prevent repetition of the installation.

NOTE: *Do not disconnect the connectors from the touch panel. The unit must be installed with the attached connectors before being inserted into the drywall.*

7. In installations where the wall surface may be uneven, apply a Wall Unit Mounting Pad (**66-59668-26**) section to the back of each corner of the device. When applied, the pad sections will help protect the back of the panel from uneven pressure during installation.
8. Latch the panel onto the bottom hooks on the back box and rotate it up. Press gently but firmly and evenly on the surface of the glass until the top panel snap “clicks” to lock it down.

WARNING: *if you see a gap between the panel and the back box, or feel any binding while locking down the panel, stop immediately and verify that no cables or other items are in the way. Do not force the panel into position, as this can cause damage to the touch screen or the panel electronics.*

9. Reconnect the terminal Ethernet and USB to their respective locations on either the Ethernet port or NetLinx Master.

Uninstalling the MXD-430

In order to access the back of the MXD-430, such as to install a USB connection for firmware upgrades, the device may need to be uninstalled from the back box. To uninstall the MXD-430:

1. Using a thin probe such as an unbent paper clip, press down into either of the two vent holes at the top of the MXD-430 flange (FIG. 5) until the snap is free.
2. Gently rock the panel back and forth to free the top from the back box.
3. Rotate it down to release the bottom latch hooks, and carefully pull the device free from the back box. Take care not to damage or pull the connections on the back of the device.

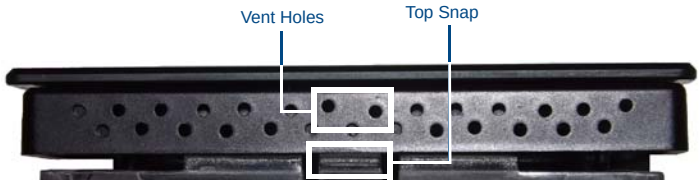

FIG. 5 Top of the MXD-430

For more information on uninstalling the MXD-430, please refer to the *MXD-430 Operation Reference Guide*, available at **www.amx.com.**

NOTE: *For a demonstration of MXD-430 uninstallation, please refer to the* Modero X Wall Removal *video on the AMXconfigure channel on YouTube: http://www.youtube.com/user/AMXconfigure/*

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